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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HERBERT HUTTLIN

Appeal 2009-013069
Application 10/823,926
Technology Center 1700

Decided: May 12, 2010

Before BRADLEY R. GARRIS, CHARLES F. WARREN, and
MARK NAGUMO, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 7, 10-12, 16-25, 29, 31, and 35. We have jurisdiction under 35 U.S.C. § 6.

We REVERSE.

Appellant claims an apparatus 10 for treating a particulate material 12 comprising a container 14 having an upright wall 16 and a deflection element 20 adjoining the wall in an upper region of the container in order to deflect a direction of movement of the particulate material, a first air gap 34, 36 in an upper portion of the wall that transitions from the wall to the deflection element, and an air feed device 38, 40, 42 for feeding an air stream 44, 46 through the first air gap, at least one of the first air gap and the air feed device being configured such that the air stream introduced through the first air gap has a flow component 48, 50 oriented substantially in an upward direction and oriented substantially tangentially with respect to at least one of the wall and the deflection element (claims 7, 35; Figs. 1, 2).

Representative claims 7, 31, and 35 read as follows:

7. An apparatus for treating a particulate material, comprising:

- a container having a base, an upright wall widening in an upward direction, and a deflection element adjoining said wall in an upper region of said container in order to deflect a direction of movement of said material;

- said wall being rotatable about a vertical axis of rotation;

- an opening for placing particulate material in to the container;

- a first air gap in an upper portion of the wall that transitions from said wall to said deflection element; and

- an air feed device for feeding an air stream through said first air gap into said container, at least one of said first air gap and said air feed device being configured such that said air stream introduced through said first air gap has a flow component oriented substantially in an upward direction and, in a region adjoining said air gap, oriented substantially tangentially with respect to at least one of said wall and said deflection element.

31. The apparatus of claim 30, wherein at least one of said second air gap and said air feed device being configured such that an air stream fed in by said air feed device has a flow component oriented substantially in an upward direction and, in a region adjoining said second air gap, oriented substantially tangentially with respect to at least one of said wall and said deflection element.

35. An apparatus for treating a particulate material, comprising:

- a container having a base, an upright wall widening in an upward direction, and a deflection element adjoining said wall in an upper region of said container in order to deflect a direction of movement of said material;

- said wall being rotatable about a vertical axis of rotation;

- an opening for placing particulate material in to the container;

- a first air gap in an upper portion of the wall that transitions from said wall to said deflection element, said first air gap forming either an interrupted or uninterrupted annular gap that encompasses the vertical axis of rotation; and

- an air feed device for feeding an air stream through said first air gap into said container, at least one of said first air gap and said air feed device being configured such that said air stream introduced through said first air gap has a flow component oriented substantially in an upward direction and, in a region adjoining said air gap, oriented substantially tangentially with respect to at least one of said wall and said deflection element.

The Examiner rejects claims 31 and 35 under the second paragraph of 35 U.S.C. § 112 for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention.

Under 35 U.S.C. § 103(a), the Examiner rejects claims 7, 10-12, 16-20, 23-25, 29, and 35 as being unpatentable over Huttlin WO '699 (WO

00/10699, published Mar. 02, 2000)¹ in view of Pace (US 5,180,358, issued Jan. 19, 1993) and rejects claims 21 and 22 over these references and further in view of Huttlin DE '184 (DE 10104184 A1, published Aug. 22, 2002).

The § 112, second paragraph, rejection of claims 31 and 35

The Examiner provides the following explanation in support of this rejection:

In claim 31, it is unclear how this claim further structurally limits the apparatus of claim 30. This claim discusses two options, one being how the second air gap is configured and then the other being how the air feed device is configured. The latter is already recited in claim 30 so it is unclear why it is further recited a second time? As for the former, while the second air gap is mentioned, how does this say any more than what is set forth in claim 30 unless in line 2, "an air stream" is deemed a secondary air stream separate from that mentioned in claim 30?

In claim 35, lines 8-9, it is unclear what [structure] constitutes an interrupted or uninterrupted annular air gap such that it encompasses the vertical axis of rotation? (Through discussion in the interview summary (8/12/08), it would appear that Appellant seeks an annular gap which would extend around the entire circumference of the upper portion of the wall but how would the gap extend around the entire circumference of the wall if the gap or opening is interrupted).

(Ans. 4).

The Examiner's § 112 rejection cannot be sustained for the reasons detailed in the Appeal Brief (Br. 6-7).

¹ In this record, the Examiner and Appellant cite to and reply upon the Huttlin publication US 2001/0016224 A1 as the English language equivalent to Huttlin WO '699.

As correctly explained by Appellant, rejected dependent claim 31 further limits allowed parent claim 30 because claim 31 involves secondary gap 36 and flow component 50 whereas the similar language in parent claim 30 involves first air gap 34 and flow component 48 (Br. para. bridging 6-7; Fig. 2). The Examiner's response to Appellant's explanation (Ans. para. bridging 8-9) reflects a failure on the Examiner's part to accurately appreciate the subject matter defined by the rejected and parent claims.

Appellant also correctly explains the structure encompassed by the interrupted or uninterrupted annular gap recited in claim 35 (Br. 7). Specifically, Appellant explains that an interrupted annular gap would contain elements that make the annular gap discontinuous or intermittent (*id.*). In response, the Examiner urges that, "[i]f the interrupted gap is discontinuous or intermittent around the container circumference[,] then the gap is no longer an annular gap but a plurality of discrete openings intermittently disposed around/about the circumference of the container" (Ans. para. bridging 9-10). However, the Examiner has provided no rationale in support of the Examiner's apparent belief that an annular gap cannot be reasonably defined by a plurality of discrete openings.

The § 103 Rejections

In rejecting the independent claims on appeal, the Examiner acknowledges that "Huttlin [WO '699] is silent concerning the use of an air gap connected to an air feed device such that air passes through or transitions through an upper portion of the container wall toward the deflection element to introduce air into the container" (Ans. 5). Nevertheless, the Examiner concludes that

[i]t would have been obvious to one of ordinary skill in the art to provide an air upper gap fed by a pressurized air feed device as taught by Pace in the upper wall of the Huttlin centrifuge type of apparatus as a source of pressure to facilitate agitation and/or mixing of the particulate material with the coating material in the upper portion of the container

(*id.* at sentence bridging 5-6).

Appellant contests the Examiner's obviousness conclusion on the grounds that "Pace does not disclose that either the first air gap or air feed device are 'configured such that said air stream introduced through said first air gap has a flow component oriented substantially in an upward direction and, in a region adjoining said air gap, oriented substantially tangentially with respect to at least one of said wall and said deflection element' [as required by independent claims 7 and 35]" (Br. para. bridging 9-10). In this regard, Appellant emphasizes that the gas inlet port of Pace is used simply to introduce a pressurized gas into the container in order to increase the pressure within the container (*id.*), and the Examiner does not argue otherwise.

Instead, the Examiner dismisses Appellant's argument as unconvincing

because one of ordinary skill in the art would readily appreciate that with the widening construction of the Huttlin [WO] '699 rotatable wall, an air feed device can be introduced on an underside of the wall via an air gap in the underside of the wall such that air would be fed into the container and would flow upward and to some extent tangentially with an inner surface of the wall as the air would be supplied therein under pressure with the consideration of the air/gas source being below the apparatus on the floor/ground

(Ans. para. bridging 10-11). The deficiency of this rebuttal is that the Examiner has identified no supporting factual evidence in either Huttlin WO '699 or Pace. Likewise, the Examiner has identified no factual evidence in these references as support for the Examiner's conclusory rebuttal statement that

Appellant's improvement to the Huttlin [WO] '699 teachings to include an air gap in the container upper wall with an air feed device communicating therewith to further facilitate air flow upward and tangent/touching of the container wall to enhance the mixing/agitation of the particulate material in the container is deemed to be within the purview of one skilled in the art

(*id.* at 12, emphasis added).

It is an established legal principle that: "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), cited with approval in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417-18 (2007).

For the above-stated reasons, this record contains no articulated reasoning with some rational underpinning to support the Examiner's legal conclusion that the subject matter defined by the independent claims on appeal would have been obvious. We cannot sustain, therefore, either of the § 103 rejections before us.

Conclusion

The decision of the Examiner is reversed.

REVERSED

Appeal 2009-013069
Application 10/823,926

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